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PRELIMINARY NOTE ON THE OCCURRENCE OF THE COMMA BACILLUS IN THE URINE OF CASES OF CHOLERA

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BY

MAJOR E. D. W. GREIG, M.D., D.SC., I.M.S

On special duty for the Cholera Enquiry

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PRELIMINARY NOTE ON THE OCCURRENCE OF THE COMMA BACILLUS IN THE URINE OF CASES OF CHOLERA.

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MAJOR E. D. W. GREIG, M.D., D.SC., I.M.S.,

On special duty for the Cholera Enquiry.

[MS. received May 19th, 1913.]

RECENTLY I commenced to examine systematically the urine of cholera cases for the presence of the comma bacillus. This investigation is still in progress, but, as I have to refer to it in one of my papers[1] in the present number of this journal and as positive results have been obtained, I think that it may be of advantage to publish a brief note at the present stage. A full account of the investigation will be given later, and in this, details of the observations, methods employed, etc., will be published in full.

Up to the present time I have examined the urine of 55 cases of cholera for the comma bacillus; in 8 of these cases I have recovered the cholera bacillus from the urine. The organism was fully authenticated by morphological, cultural, and serum tests in each case in the manner described by me in my other papers on cholera.[2]

In the literature available I have been unable to find any record of a systematic investigation of the urine of cases of cholera having been carried out to determine the presence or absence of the comma bacillus. It has been generally held, indeed, that the cholera organism does not leave the alimentary tube. I have shown, however, that this is not always the case, and the cholera organism, like the B. typhosus, does enter, develop, and produce pathological changes in the gall-bladder and biliary passages in a considerable number of cases of cholera.[1]

The determination of the presence of the comma bacillus in the urine of cholera cases is, therefore, a fresh observation and of considerable interest and importance in regard to the etiology and prevention of this disease.

It is evident from this observation that in a certain number of cases of cholera the organism is carried by the blood stream to the kidneys where it is eliminated in the urine and from the urine the organism can be recovered by suitable cultural methods. Hence in these cases the disease is a septicæmia : in this connection the observation which I made on the presence of a comma bacillus in a pneumonic area of the lung in a case of cholera is of interest.[3]

From the point of view of prevention of cholera the observation is obviously important as it indicates another and hitherto unrecognised channel of escape of the cholera organism from the human body, and one which must be taken into consideration. In two of the cases of cholera I recovered the organism from the urine during the stage of convalescence when the persons were going about doing their work.

REFERENCES.

1. An investigation on the occurrence of the cholera vibrios in the biliary passages. Greig, Indian Journal of Medical Research, Vol. I, 1913.
2. Indian Journal of Medical Research, Vol. I, 1913.
3. *Ibid.*, and *Lancet*, Nov. 23, 1912.

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